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AM4045254 BOOK EXPLC

Chernyak, O. Ya.

Dielectric methods of investigation of
vaniya vliazhnykh prirodo Moscow,
1500 copies printed. At head of
S.M. Chernyak, O. Ya. Chernyak, A.
Muzakova, I. A. Muzakova, A.

Series note: Vsesoyuznyy nauchno-issledovatel'skiy institut geologii i
Inzhenernoy geologii. Trudy. M.: Nedra.

TOPIC TAGS: geophysics, moisture, rock, soil structure, well

PURPOSE AND COVERAGE: This book represents an attempt to systematize and generalize cumulative experience in the development and application of dielectric methods of solving certain practical problems. It has been used to problems of moisture content and porosity of rocks.

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tion. Brief information is presented concerning the coring of wells. The author expresses his gratitude to the Mathematical Sciences S. M. Sheynman, to Candidate of Technical Sciences N. A. Ogil'vi, and to Engineers V. N. Chubarev and A. M. Shamshurin.

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REF ID: A631808-65

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Literature - 125

SUB CODE: 88

SYNOPSIS:

OTHER:

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30759

S/141/61/004/003/010/020

E192/E782

Theory of the quantum amplifier ...

where ξ, η, ζ are real orthogonal axes which are suitably oriented with respect to the axes of the crystal and external magnetic field H_0 :

m and n are quantum numbers of the resonance energy levels of an ion (whose transition frequency is ω_{mn}), and

a is a real parameter.

The resonance portion of the mean magnetic moment induced by the alternating magnetic field $H(t)$ is:

$$\underline{M}(t) = \text{Re} \left\{ \underline{d}_{nm} (\underline{d}_{mn} H^*) Q e^{-i\omega t} \right\} \quad (2)$$

where $Q(\omega)$ is a factor determining the shape of the line. It is seen that the quantity $\underline{M}$ is determined by the projection of the vector H^* on the direction $\underline{d}_{mn}$. The field H^* is orthogonal to $\underline{d}_{mn}$ and determines two independent non-resonance

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Theory of the quantum amplifier

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polarizations of the alternating magnetic field:

$$H_{\eta} = 0, \quad H_{\zeta} = iaH_{\xi} \quad (3)$$

$$H_{\eta} \neq 0, \quad H_{\zeta} = H_{\xi} = 0 \quad (4)$$

The average power absorbed in a unit volume is (Ref. 5 - L.D. Landau, Ye.M. Lifshits - Electrodynamics of Solid Media, GITTL, Moscow, 1957):

$$\bar{p} = \frac{i\omega}{16\pi} (\mu_{ik}^* - \mu_{ki}) H_i H_k^*$$

and since the permeability tensor is in the form:

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$$\{p_{ik}\} = \begin{pmatrix} 1 + i\alpha a^2 & 0 & -\alpha a \\ 0 & 1 & 0 \\ \alpha a & 0 & 1 + i\alpha \end{pmatrix} \quad (5)$$

where:

$$i\alpha = 4\pi \left| d_{mn}^{\zeta} \right|^2 \quad (6) \quad \checkmark$$

it follows that:

$$\bar{p} = \frac{\omega a^2}{8\pi} \left| H_{\zeta} - i\alpha H_{\zeta} \right|^2, \quad \alpha^2 = \text{Re } \alpha \quad (7) .$$

The ratio $\bar{p}$ is a maximum when:

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Theory of the quantum amplifier ... E572/E582

$$H_{\eta} = 0, \quad H_{\xi} = 1aH_{\zeta} \quad (8),$$

from which it is seen that the magnetic-field polarization is of the non-resonance type. In quantum amplifiers with a travelling wave (Ref. 8 - De Grasse, IRE, Wescon Conv. Record, August, 1958; Ref. 9 - De Grasse, Schulz-Du Bois, Scovill, BSTJ, 38, 305, 1959), amplification can be achieved by using delay systems producing group or phase-velocity delays. The dependence of the amplifier on the phase velocity in the case of surface waves is investigated. In the symmetrical surface H-wave, propagating along the axis z , above a plane $x = 0$, it is assumed that the components E_y , H_x and H_z are finite and that $k_x = i\beta$, $k_y = 0$ and $k_z = \gamma$. The permeability of the system is $\mu = 1$ and its permittivity is ϵ . Consequently, the following expressions are true:

$$\gamma^2 - \beta^2 = k^2, \quad k = \omega \sqrt{\epsilon/c} \quad (9).$$

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Theory of the quantum amplifier... S/141/61/004/003/010/020
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By introducing a normalized phase velocity $u = k/\gamma = v_0 \sqrt{\epsilon}/c$,
 β can be expressed by:

$$\beta = \frac{\sqrt{1 - u^2}}{|u|} k$$

By considering the equation $\text{div } \underline{H} = 0$ it follows that:

$$H_x = igH_z$$

where:

$$g = \gamma/\beta = \text{sgn } u / \sqrt{1 - u^2} \quad (\text{sgn } u = u/|u|) \quad (10)$$

The electric and magnetic fields are related by:

$$E_y = -Z(\omega)H_z \quad (11)$$

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E: 2/E382

Theory of the quantum amplifier...

where $Z(\omega)$ is the surface impedance of the directing plane, which is assumed to be purely reactive. The gain or amplification parameter of the system can be expressed by:

$$\gamma'' = \frac{\chi}{u} \left[(a \operatorname{sgn} u + \sqrt{1 - u^2})^2 \cos^2 \Theta + (a \sqrt{1 - u^2} + \operatorname{sgn} u)^2 \sin^2 \Theta \right] \quad (14)$$

where Θ is the angle between the axes ξ and x . The dependence of the gain γ'' on the phase-velocity for the direct and reflected waves for the case defined by:

$$\Theta_0 = \pi/2, \quad g_0 = a, \quad u_0 = \sqrt{a^2 - 1/a} \quad (16a)$$

is illustrated in Fig. 3. In the case of an isotropic surface impedance, when the longitudinal components of the travelling wave, expressed by:

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Theory of the quantum amplifier... ³⁰⁷⁵⁹ S/141/61/004/003/010/020
E192/E382

$$E_z = \sin(\delta y - \varphi) A e^{-\beta x + i(\gamma z - \omega t)} \quad (19)$$

$$H_z = \sqrt{\epsilon} B \cos(\delta y - \varphi) A e^{-\beta x + i(\gamma z - \omega t)}$$

where A and φ are arbitrary constants and the normalized quantities:

$$d = \delta/k, \quad b = \beta/k, \quad h = \gamma/k = 1/u$$

are related by:

$$h^2 - 1 = b^2 - d^2 \quad (20)$$

the gain is expressed by:

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Theory of the quantum amplifier....
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 E192/E382

$$\gamma'' = \frac{\chi}{u} \left(1 - \frac{u^2}{1 + d^2 u^2} \right) f(a, g, \omega)$$

where:

$$g = (1 + d^2 u^2) [1 + (d^2 - 1)u^2]^{-1/2} \operatorname{sgn} u \quad (25) .$$

From this it is seen that the direct and reflected non-symmetrical waves are amplified in an identical manner. In the case of anisotropy surface impedance, where the boundary condition is expressed by:

$$E_y = -Z_2 H_z, \quad E_z = Z_1 H_y \quad (27) ,$$

the amplification can be expressed by:

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Theory of the quantum amplifier... ³⁰⁷⁵⁹ S/141/61/004/003/010/020
F192/E382

$$\gamma'' = \frac{\chi}{u} \frac{d^2}{1-d^2} \left\{ \left[a \sqrt{1 - (1-d^2)u^2} + \operatorname{sgn} u \right]^2 \cos^2 \Theta + \right. \\ \left. + \left[a \operatorname{sgn} u + \sqrt{1 - (1-d^2)u^2} \right]^2 \sin^2 \Theta \right\} \quad (36).$$

This is similar to Eq. (14).
There are 4 figures, 4 tables and 15 references: 6 Soviet-bloc
and 9 non-Soviet-bloc. The four latest English-language
references mentioned are: Ref. 1 - I.J. Rabi, N.F. Ramsey,
J. Schwinger - Rev. Mod. Phys., 26, 167, 1954; Ref. 6 -
N. Bloembergen - Phys. Rev., 104, 324, 1956; Ref. 8 - quoted
in text, also Ref. 9.

ASSOCIATION: Institut radiofiziki elektroniki AN UkrSSR
(Institute of Radiophysics and Electronics of
the AS UkrSSR)
SUBMITTED: August 1, 1960

Card 10/11

ACCESSION NR: AP4024480

S/0141/64/007/001/0181/0182

AUTHORS: Kontorovich, V. M.; Chernyak, G. Ye.

TITLE: Line strength of magnetic-dipole transition in the hyperfine structure of the atom

SOURCE: IVUZ. Radiofizika, v. 7, no. 1, 1964, 181-182

TOPIC TAGS: atomic spectrum, hyperfine structure, magnetic dipole transition, line strength, hydrogen, deuterium, nitrogen 14, spontaneous transition, interstellar medium, radioastronomy, nitrogen concentration, interstellar nitrogen concentration

ABSTRACT: After pointing out that the line strength given by I. S. Shklovskiy (Kosmicheskoye radioizlucheniye, GITTL, M., 1956, Ch. 4) leads in the case of nitrogen to appreciable disparity with the correct results, the authors recalculate the line strength for hydrogen, deuterium, and N^{14} . The lines in question describe spontaneous

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ACCESSION NR: AP4024480

transitions between components of the hyperfine structure of atoms in the interstellar media, and are of importance to radio astronomy. The calculations show that the accumulation time for the nitrogen line is about one order of magnitude larger than indicated by Shklovskiy. However, should the real nitrogen concentration be larger than presently assumed, the results might change. "The authors are grateful to S. Ya. Braude and I. S. Shklovskiy for useful discussions." Orig. art. has: 3 formulas and 1 table.

ASSOCIATION: Institut radiofiziki i elektroniki AN UkrSSR (Institute of Radiophysics and Electronics, AN UkrSSR)

SUBMITTED: 22Apr63

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ENCL: 01

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NR REF SOV: 002

OTHER: 005

Card 2/5

ACCESSION NR: AP4024480

ENCLOSURE: 01

1	2	3	4	5
Элемент	Переходы $F-F-1$	Длина волны λ	Сила линии	
			по формуле (3)	по [7]
Водород	$1 \rightarrow 0$	21 см	3	3
Дейтерий	$3/2 \rightarrow 1/2$	91,6 см	5,3	6
Азот N^{14}	$5/2 \rightarrow 3/2$	11,47 м	14,4	60
	$3/2 \rightarrow 1/2$	19,14 м	13,3	30

Line strengths for hydrogen, deuterium, and N^{14} as obtained in this work and as given elsewhere

1 - Element, 2 - Transitions, 3 - Wavelength, 4 - by formula (3),
5 - by ref. [3], 4-5 - Line strength, 6 - Hydrogen, 7 - Deuterium
8 - Nitrogen

Card 3/3

DEKOK, T.A.; CHERNYAK, G.Ye.

Carboniferous sediments in the Upper Taymyra Valley, based
on field data obtained in 1958. Inform.biul.NIIGA no.11:20-22
'58. (MIRA 12:5)

(Upper Taymyra Valley--Geology, Stratigraphic)

CHERNYAK, G.Ye.; DEDOK, T.A.

Recent data on the upper Paleozoic in the Tareya Valley (central Taymyr).
Sbor. st. po paleont. i biostrat. no.13:20-28 '59.

(MIRA 13:3)

(Tareya Valley--Geology, Stratigraphic)

CHERNYAK, G.Ye.

Middle and upper Carboniferous stratigraphy of the Taymyr Peninsula.
Sbor.st.po paleont.i biostrat. no.18:16-22 '60. (MIRA 13:8)
(Taymyr Peninsula--Geology, Stratigraphic)

CHERNYAK, G.Ye.

Stratigraphic system of lower Carboniferous deposits of the
Taymyr Peninsula. Trudy NIIGA 111:11-23 '60. (MIRA 14:7)
(Taymyr Peninsula--Geology, Stratigraphic)

DEDOK, T.A.; CHERNYAK, G.Ye.

Lower Carboniferous brachipods of the Taymyr Peninsula.

Trudy NIIGA 111:52-81 '60. (MIRA 14:7)

(Taymyr Peninsula—Brachipoda, Fossil)

SHVEDOV, N.A.; USTRITSKIY, V.I.; ~~CHERNYAK~~ HERNYAK, G.Ye.; GERKE, A.A.; SOSIPATROVA, G.P.

New stratigraphic scheme of upper Paleozoic sediments in the Taymyr
Peninsula. Sbor.st.po paleont. i biostrat. no.24:12-15 '61.
(MIRA 15:2)

(Taymyr Peninsula—Geology, Stratigraphic)

USTRITSKIY, Vitaliy Ivanovich; CHERNYAK, Georgiy Yevseyevich;
POPOV, Yu.N., doktor geol.-mineral.nauk, red.; DESHALYT, M.G.,
vedushchiy red.

[Biostratigraphy and brachiopods of the Upper Paleozoic of
the Taymyr Peninsula.] Biostratigrafiia i brakhiopody verkhnego
paleozoya Taimyra. Leningrad, Gostoptekhizdat, 1963. 138 p.
(Leningrad. Nauchno-issledovatel'skii institut geologii arktiki.
Trudy, vol. 134) (MIRA 17:6)

BOGUSH, O.I.; GERASIMOV, Ye.K.; CHERNYAK, G.Ye.; YUFEREV, O.V.

Krestyakh conglomerates at the mouth of the Lana River
and their analogies. Dokl. AN SSSR 153 no.1:166-169 N '63.
(MIRA 17:1)

1. Institut geologii i geofiziki Sibirskogo otdeleniya
AN SSSR. Predstavleno akademikom A.A. Trofimukom.

BOGUSH, Oksana Ivanovna; GERASIMOV, Yevgeniy Konstantinovich;
YUFEREV, Oleg Vyacheslavovich. Prinimali uchastiye:
DUBATOLOV, V.N.; CHUDINOVA, I.I.; IVANOVSKIY, A.B.;
YELKIN, Ye.A.; CHERNYAK, G.Ye.; FURSENKO, A.V., otv. red.

[Lower Carboniferous of the lower Lena Valley] Nizhnii
karbon nizov'ev Leny. Moskva, Nauka, 1965. 64 p.
(MIRA 18:7)

1. Chlen-korrespondent AN Belorusskoy SSR (for Fursenko).

CHERNYAK, I., dotsent

Plants as indicators. Nauka i zhizn' 30 no.9:11 S '63.
(MIRA 16:10)
1. Kafedra khimii Orekhovo-Zuyevskogo pedagogicheskogo instituta.

YASHCHERITSYN, P.I., dotsent, kand.tekhn.nauk; CHERNYAK, I., red.;
STEPANOVA, N., tekhn.red.

[Quality of surfaces and precision of parts machined by
abrasive tools] Kachestvo poverkhnosti i tochnost' detalei
pri obrabotke abrazivnymi instrumentami. Minsk, Gos.izd-vo
BSSR. Red.nauchno-tekhn.lit-ry, 1959. 230 p. (MIRA 13:1)
(Grinding and polishing)

SUL'SKIY, Khaim Davydovich; CHERNYAK, I., red.; STEPANOVA, N., tekhn.red.

[Technical norms for machining in mechanical shops] Tekhnicheskoe normirovanie stanochnykh rabot v mekhanicheskikh tsekhakh. Minsk, Gos.izd-vo BSSR. Red.nauchno-tekhn.lit-ry, 1959. 234 p. (MIRA 13:1)
(Factory management)

ZAKHAROV, V.K., prof.; TRULL', O.A., kand.sel'skokhoz.nauk; MIROSHNIKOV,
V.S., kand.sel'skokhoz.nauk; YERMAKOV, V.Ye., kand.sel'skokhoz.
nauk; CHERNYAK, I., red.; STEPANOVA, N., tekhn.red.

[Timber valuation manual] Lesotaksatsionnyi spravochnik. Pod
obshchei red. V.K.Zakharova. Minsk, Gos.izd-vo BSSR, 1959.
300 p. (MIRA 13:4)

(Forests and forestry--Valuation)

MININ, Aleksey Nikolayevich, dotsent, kand.tekhn.nauk; CHERBYAK, I., red.;
STEPANOVA, N., tekhn.red.

[Manufacture of compressed waste-wood products and materials]
Proizvodstvo izdelii i materialov iz izmel'chennoi drevesiny
pressovaniem. Minsk, Gos.izd-vo BSSR, Red.nauchno-tekhn.lit-ry,
1960. 181 p. (MIRA 13:6)
(Wood, Compressed)

CHERNYAK, I.

Carrying out decisions of the congress. ITO 2 no.2:26-27 F
'60. (MIRA 13:5)

1. Zamestitel' predsedatelya TSentral'nogo pravleniya Nauchno-
tekhnicheskogo obshchestva neftyanoy i gazovoy promyshlennosti.
(Petroleum industry)

RUDITSYN, M.N.; ARTEMOV, P.Ya.; LYUBOSHITS, M.I.; CHERNYAK, I., red.;
STEPANOVA, N., tekhn. red.

[Reference manual on the strength of materials] Spravochnoe
posobie po soprotivleniiu materialov. Pod 'obshchei red. M.N.
Ruditsyna. 2. ispr. izd. Minsk, Gos.izd-vo BSSR. Red.
nauchno-tekhn.lit-ry, 1961. 515 p. (MIRA 15:1)
(Strength of materials)

SHAPIRO, David Kopelevich; ZAKHARICH, Filipp Fedorovich; GOLOMSHTOK,
Moisey Markovich; CHERNYAK, I., red.; STEPANOVA, N., tekhn.
red.

[Vegetable and mushroom canning at home] Konservirovanie
ovoshchei i gribov v domashnikh usloviakh. Izd.2., perer. i dop.
Minsk, Gos. izd-vo BSSR. Red. nauchnotekhn. lit-ry, 1961. 105 p.
(MIRA 14:8)

(Vegetables, Canned) (Mushrooms, Edible--Preservation)

S/093/61/000/002/003/003
A051/A129

AUTHOR: Chernyak, I.

TITLE: The fourth plenum of the central administration of the NTO of the petroleum and gas industry

PERIODICAL: Neftyanoye Khozyaystvo, no. 2, 1961, 67-68

TEXT: The fourth plenum of the central administration of the NTO of the petroleum and gas industry took place in Moscow on November 22 and 23, 1960, and was dedicated to organizational problems of the Society for fulfilling the resolutions adopted at the CC CPSU Plenum in July, 1960. About 300 members of various research and educational institutions took part. Vice-President of the AS USSR, Topchiyev, spoke on the problems facing science in connection with fulfilling the July Plenum resolutions. Special attention is being given to supplying the country with electric power by the cheapest possible means, to converting other forms of energy into electrical energy and to finding the suitable conditions for sending a man into space. A study is being made on the possibilities of creating a stable state for the high-temperature phase of thermo-nuclear synthesis. It is expected that by the end of the current 1959/67 Seven-Year Plan the fuel

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The fourth plenum of the central administration ...

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output will total 1 billion tons in the USSR. Stress was placed on the success accomplished in the field of semi-conductors, the physics of plasma, leading to new means for converting thermal to electrical energy without mechanical transformations. A. V. Topchiyev also spoke on the prospects of developing the petroleum and gas industry, as well as that of chemical synthesis. Geological prospecting for new oil and gas deposits has been intensified and charts are being drawn up giving a prognostic evaluation of the oil-bearing territories. The problem of drilling at a depth of 10 - 15 km was raised. The use of diamond drills and their advantages were discussed. Achievements in elevating the stability of oil-well walls by artificial means have been made by the IGIRGI AS USSR. Attempts are being made to use compressed or high-pressure gases to dislodge the oil from the layers. Studies are being made on the most rational use of gaseous fuel. In this connection research is being carried out on the theory of stability and structure of the gas flame, the aerodynamics of gas flows, etc., the construction of vapor-gas turbine installations. Synthetic gases are being produced by the gasification of heavy liquid fuels, primarily of sulfurous fuel oils. The paper also dealt with the research efforts on oil refining in connection with chemical synthesis. The Institut organicheskoy khimii (Institute of Organic Chemistry) at the Bashkiria branch of the AS USSR is handling the problem

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A051/A129

The fourth plenum of the central administration ...

of high-sulfurous petroleum. Another pending problem is the separation of gaseous and liquid hydrocarbons needed for the synthesis of polymer materials. The AS USSR institutes, the AS Azerbaydzhan SSR institutes and the institutes of the State Committee for Chemistry at the USSR Council of Ministers are dealing with the subject of divinyl production from butene and isoprene from isopentane by one-stage synthesis. Research workers are devoting special attention to the formation of regulating processes of oxidation of paraffins, olefins and aromatic hydrocarbons, based on the study of chain reactions. Certain institutes are studying the production of new more effective demulsifiers for the destruction of petroleum emulsions. The plenum adopted the resolution to maintain close contact between the work of the AS USSR workers and those of the NTO organizations of the petroleum and gas industry. Strict control should be held over completed research projects. Other papers were presented by: S. M. Akhmedzade, (AzNTO NGP) U. I. Kinzikeyeva, (Bash. NTO NGP), A. I. Fedorchenko, (Stalingrad NTO). K. I. Ponamero, (TatNTO) presented a paper on "The experience in creating an experimental complex-automatic oil refinery in the Zay-Karatay area". ✓

Card 3/3

ZAKHAROV, Vasilii Kirillovich, prof.; TRULL', Oleg Antonovich; MIROSHNIKOV, Vladimir Semenovich; YERMAKOV, Viktor Yevseyevich; CHERNYAK, I.,
red.; NOVIKOVA, V., tekhn. red.

[Forest valuation handbook] Lesotaksatsionnyi spravochnik. Pod
obshchei red. V.K.Zakharova. Izd.2., ispr.i dop. Minsk, Gos.
izd-vo BSSR. Red. nauchno-tekhn.lit-ry, 1962. 367 p.
(MIRA 15:6)

(Forests and forestry--Valuation)

BERSHADSKIY, A.L., prof.; CHERNYAK, I., red.; STEPANOVA, N.,
tekhn. red.

[Applying increased speeds of cutting to sawmilling; high-speed sawing with reduced power consumption] Primenenie povyshennykh skorostei rezaniya v lesopilenii; skorostnoe pilenie s ponizhennym energopotrebleniem. Minsk, Gos.izd-vo BSSR, 1952. 34 p.

(Saws)

(MIRA 16:8)

CHERNYAK, I.

All-Union volunteer workers' inspection of the fulfilment of
scientific-research work and the introduction of and technical
achievements into the national economy. Neft. khoz. 41 no.7:
71 J1'63 (MIRA 17:7)

CHERNYAK, I.

Results of the Third Public Inspection of the Fulfillment of
Plans for Scientific-Research Work and the Introduction of the
Advancements of Science and Technique by the Organizations of
the Scientific and Technical Society of the Petroleum Industry.
Neft. khoz. 43 no.6:65-67 Je '65. (MIRA 18:7)

1. CHERNYAK, I. A.
2. USSR (600)
4. School Excursions
7. Excursions to local industries., Khim. v shkole, No. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

CHEERNYAK, I.A. (g. Kolomna).

Interesting, experimental chemistry problems. Khim. v shkole no. 3:65-68
My-Je '53. (MLRA 6:7)

(Chemistry--Problems, exercises, etc.)

CHERNYAK, I.A.

Apparatus with inner electric heating. Khim.v shkole 10 no.2:48-51
Mr-Ap '55. (MLRA 8:7)
(Chemical apparatus)

CHERNYAK, I.A.

Apparatus for demonstrating the electric conductivity of melted
batches and solutions. Khim.v shkole 10 no.3:64 My-Je '56.

(MIRA 9:8)

(Chemical apparatus)

CHERNYAK, I.A.

CHERNYAK, I.A.; PAPRITS, A.G. (Moskva)

An apparatus for obtaining high-temperature flames in burners.
Khim.v shkole 12 no.6:35-40 N-D '57. (MIRA 10:12)
(Chemical apparatus)

CHERNYAK, I.A. (Moskva)

~~Providing more training for chemical laboratory assistants in~~
schools. Khim. v shkole 13 no.5:79 S-0 '58. (MIRA 11:9)
(Chemistry--Study and teaching)

CHERNYAK, I.A.

Apparatus for demonstrating experiments on the gasification of solid fuel. Khim. v shkole 15 no.5:67-69 S-O '60. (MIRA 13:10)

1. Orekhovo-Zuyevskiy pedagogicheskiy institut.
(Coal gasification) (Carbon monoxide)
(Chemistry--Experiments)

CHERNYAK, I.A.

Manufacturing the details and "units" during the construction
of chemical apparatus. Khim. v shkole 16 no.5:70-73 S-0 '61.
(MIRA 14:9)

1. Pedagogicheskiy institut, Orekhovo-Zuyevo.
(Chemical apparatus)

CHERNYAK, I. A.; Prinimal uchastiye: RUDERMAN, R. O.

Electric glass cutter for tubes and cylindric containers.
Khim. v shkole 17 no.4:67-68 J1-Ag '62. (MIRA 15:10)

1. Pedagogicheskiy institut, g. Orekhovo-Zuyevo.

(Chemical laboratories—Equipment and supplies)
(Glass cutting)

CHERNYAK, I.A.

Conducting a school Olympiad on the topic "Do you know the origin of the names of chemical elements?" Khim. v shkole 18 no.1:70-72 Ja-F '63.
(MIRA 16:4)

1. Pedagogicheskiy institut, g. Orekhovo-Zuyevo.
(Chemistry—Examinations, questions, etc.)

CHERNYAK, I.G.

Liquidation of a permanent focus of malaria at the Pronkino peat works in Yartsevo District. Med.paraz. i paras. bol. 25 no.3:266-268 J1-S '56. (MIRA 9:10)

1. Zav. parazitologicheskim otdelom Smolenskoj oblastnoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach L.I.Rakityanskaya)
(MALARIA, prevention and control,
in Russia (Rus))
(MOSQUITOES,
eradication in Russia (Rus))

CHERNYAK, I.G.

Group outbreak of trichinosis in one of the districts of Smolensk Province. Zhur.mikrobiol., epid.i immun. 33 no.4:122-123 Ap '62.
(MIRA 15:10)

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CHERNYAK, I.G.

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Province. Med.paraz. i paraz.bol. 33 no.3:355-356 My-Je '64.
(MIRA 18:2)

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epidemiologicheskoy stantsii.

CHERNYAK, I. L.

N/5
735.5
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Neftebazy (Petroleum Bases) (Moskva?) Gostoptekhnizdat, 1947.
i v. (Various paging) illus., diagrs. tables.
Photostat copy incomplete.

CHERNYAK, I. L.

PA 25/49T93

USSR/Petroleum Industry
Petroleum Pipe Lines

Jun 48

"Studies on Hydraulic Resistances in Special
Crimped Gasoline Resistant Hoses and Locking
Valves," I. L. Chernyak, 4 pp

"Neft Khoz" No 6

Mathematical formulas for determining
resistance in pipes manufactured especially
for transporting oil at oil fields and re-
fining establishments. Constant studies under
way to determine best pipe to cut resistance
to minimum, decreasing pumping losses.

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Safety technique in the transportation and storing of petroleum and gas. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1952. 210 p. (53-34890)

TN871.047

CHERNYAK, I. L.

Subject : USSR/Chemistry AID P - 840
Card 1/1 Pub. 78 - 25/26
Author : Lavrov, D. P., Engineer
Title : Better qualified elucidation of fire prevention technique
Periodical : Neft. khoz., v. 32, #9, 85-96, S 1954
Abstract : Criticism of I. L. Chernyak's book Safety Technique of
Transportation and Storage of Oil and Gas.
Institution: None
Submitted : No date

CHERNYAK, I.I.; KLEYMENOVA, K.F., redaktor; POLOSINA, A.S., tekhnicheskii redaktor.

[Safety measures for the handling of petroleum products; manual for agricultural workers] Tekhnika bezopasnosti pri obrashchenii s nefteproduktami; pamiatka dlia rabotnikov sel'skogo khoziaistva. Moskva, Gos.nauchno-tekhn.izd-vo neftianoi i gorno-toplivnoi lit-ry, 1955. 42 p. (MIRA 8:4)
(Petroleum products--Safety measures)

CHERNYAK, I. L.

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page 177 of the book Petroleum Bases and Pipe Lines, Gostoptekhnizdat,
1956.

~~CHERNYAK~~, I.I., inzhener; MERKULOV, N.S. inzhener; NOVIKOVA, M.M.,
vedushchiy redaktor; MUKHINA, E.A., tekhnicheskiiy redaktor

[Safety instructions for handling ethylated gasoline
when receiving, storing, removing and delivering it at
enterprises of the Chief Administration of the Supply of
Petroleum and By-products] Instrukttsia po meram bezopasnosti
pri obrashchenii s etilirovannym benzinom pri ego priemke,
khranении, otpuske i perekachke na predpriatiakh Glavneftesbyta.
Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry,
1956. 102 p. (MLRA 10:5)

(Gasoline--Safety measures)

CHERNYAK, Il'ya L'vovich; MATSKIN, Leonid Arkad'yevich; YERSHOV, P.R.,
redaktor; TROFIMOV, A.V., tekhnicheskiiy redaktor

[Operation of petroleum tank farms] Eksploatatsiia neftebaz.
Moskva, Gos.nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi
lit-ry, 1956. 390 p. (MLRA 9:4)
(Petroleum--Storage)

GRIGORYAN, I-L.

GRIGORYAN, Grigoriy Markovich, doktor tekhnicheskikh nauk; ALEKSIN, Aleksandr Georgiyevich, inzhener; ZAKS, Saveliy L'vovich, kandidat tekhnicheskikh nauk; KUZIN, Mikhail Ivanovich, inzhener; POLOZKOV, Vladimir Tikhonovich, kandidat tekhnicheskikh nauk; SUKHANOV, Vasilii Pavlovich, inzhener; SULTANOV, D.K., inzhener; STREL'CHUK, Nikolay Antonovich, inzhener; CHERNYAK, Il'ya L'vovich, inzhener; KUSHNLEV, V.P., retsenzent; ROYZEN, I.S., otvetstvennyy redaktor; ZAMARAYEVA, K.M., vedushchiy redaktor; KOVALEVA, A.A., vedushchiy redaktor; SAVINA, Z.A., vedushchiy redaktor; TROFIMOV, A.V., tekhnicheskiiy redaktor

[Safety engineering and fire prevention in the petroleum industry]
Tekhnika bezopasnosti i protivopozharnaya tekhnika v neftianoi promyshlennosti. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gornotoplivnoi lit-ry, 1956. 508 p.
(Petroleum industry--Safety measures) (MLRA 10:1)
(Fire prevention)

CHERNYAK, IL'YA L'VOVICH

CHERNYAK, Il'ya L'vovich; NOVIKOVA, M.M., vedushchiy red.; MUKHINA, E.A.,
term: red.

[Safety methods and fire prevention measures in the transportation and storage of petroleum, petroleum products and gas] Tekhnika bezopasnosti i protivopozharnaia tekhnika pri transporte i khranении nefti, nefteproduktov i gaza. Izd.2-os, perer.i dop. Moskva, Gos. nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry, 1957. 243 p.

(MIRA 10:12)

(Petroleum industry--Safety measures) (Gas, Natural)

CHERNYAK, I.

In the Scientific and Technical Society of the Petroleum Industry.
Gaz.prom. no.2:38-39 P '57. (MLRA 10:3)
(Gas, Natural)

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All-Union conference on further development of the gas industry.
Gaz.prom. no.4:36-39 Ap '57. (MLRA 10:5)
(Gas manufacture and works)

CHERNYAK I.L.

SONIN, S.D., prof.; SELETSKIY, R.A., dots., kand.tekhn.nauk; KILYACHKOV,
A.P., dots., kand.tekhn.nauk; CHERNYAK, I.L., gornyy inzh.

Analysis of certain basic factors hampering the growth of labor
productivity in Donets Basin mines. Ugol' 32 no.12:9-13 D '57.
(MIRA 11:1)

(Donets Basin--Coal mines and mining)

CHEP'NYAK, I.

Brief news. Gaz. prom. no.3:60-61 Mr '58.
(Petroleum industry--Congresses)

(MIRA 11:3)

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Scientific and Technical Society of the Petroleum Industry. Gas.
prom. no.5:55 My '58. (MIRA 11:5)
(Petroleum industry)

CHEBANYAK, I.

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petroleum products, and gas. Neft. khoz. 36 no.5:70-71 My '58.

(MIRA 11:6)

(Petroleum industry) (Gas, Natural)

11(0)

SOV/93-58-10-18/19

AUTHOR: Chernyak, I.

TITLE: In the Scientific and Technical Society of the Petroleum Industry
(V nauchno-tekhnicheskoy obshchestve neftyanoy promyshlennosti)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 10, p 71 (USSR)

ABSTRACT: On August 8, 1958 the Presidium of the VTsSPS (All-Union Central Council of Trade Unions) announced that the organizations of the NTO NP (Scientific and Technical Society of the Petroleum Industry) will hold elections from September through December 20, 1958. The first conference of the Society will take place in Baku from the 16 through the 18 of December. In view of the May Resolution of the Communist Party to accelerate the development of the chemical industry the author asks the members of the Society to elect well qualified leaders and to include into the organization many engineers, technicians, innovators, and scientific workers.

Card 1/1

CHERNYAK, I.

In the Scientific and Technical Society of the Petroleum Industry.
Gaz. prom. no.10:56 0 '58. (MIRA 11:11)
(Petroleum industry)

CHERNYAK, I.

Raising important questions. Okhr.truda i sots.strakh. no.4:55-56
O '58. (MIRA 12:1)

1. Zamestitel' predsedatelya TSentral'nogo pravleniya nauchno-
tekhnicheskogo otdela neftyanoy promyshlennosti.
(Petroleum industry--Safety measures)

CHERNYAK, I. L.

MATSKIN, L.A.; KOVALENKO, K.I.; BABUKOV, V.G.; KONSTANTINOV, N.N.;
PONOMAREV, G.V.; FAL'CHIKOV, G.N.; PELENICHKO, L.G.; SHAMARDIN,
V.M.; GLADKOV, A.A.; BRILLIANT, S.G.; SHEVCHUK, V.Ya.; SOSHCHE-
KO, Ye.M.; ALEKSANDROV, A.M.; BUNCHUK, V.A.; KRUPENIK, P.I.;
MAYEVSKIY, V.Ya.; YELSHIN, K.V.; GAK, Kh.A.; POTAPOV, G.M.;
KARDASH, I.M.; STEPURO, S.I.; KAPLAN, S.A.; SELIVANOV, T.I.;
YEREMENKO, N.Ya.; ZHUZH, A.D.; USTINOV, A.A.; GIRKIN, G.M.;
VOLOBUYEV, P.P.; CHERNYAK, I.L., nauchnyy red.; DESHALYT, M.G.,
vedushchiy red.; GENNAD'YEVA, I.M., tekhn.red.

[Combating losses of petroleum and petroleum products; materials
of the All-Union Conference on Means of Combating Losses of
Petroleum and Petroleum Products] Bor'ba s poteriami nefi i
nefteproduktov; po materialam Vsesoiuznogo soveshchaniya po bor'be
s poteriami nefi i nefteproduktov. Leningrad, Gos.nauchno-tekhn.
izd-vo nefi i gorno-toplivnoi lit-ry, 1959. 157 p. (MIRA 13:2)

1. Nauchno-tekhnicheskoye obshchestvo neftyanoy i gazovoy pro-
myshlennosti.

(Petroleum industry)

CHERNYAK, I.

First Congress of the Scientific and Technical Society of
the Petroleum and Gas Industry. Gaz. prom. 4 no.7:53-54
Jl '59. (MIRA 12:10)

1. Zamestitel' predsedatelya Tsentral'nogo pravleniya Nauchno-
tekhnicheskogo otdela neftyanoy i gazovoy promyshlennosti.
(Petroleum industry--Congresses)

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SOV/65-60-2-14/15

AUTHOR: Chernyak, I. L.

TITLE: Conference on the Complex Automation of Petroleum Processing

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, Nr 2, pp 70-71 (USSR)

ABSTRACT: The conference was held November 24 to 29, 1959, at the Moscow (Lyubertsy) Petroleum Processing Plant. It was convened by the central administration of the Scientific and Technical Division of the Petroleum and Gas Industry; the USSR Gosplan; the GNTK USSR; the RSFSR Gosplan; the GNTK RSFSR; the Central Committee of the Professional Union of the Petroleum and Chemical Industry; and the Moscow Petroleum Processing Plant. About 380 people from the concerned industries attended. Fifteen reports, eight communications, and more than thirty speeches were heard. Complex automation has not yet been achieved at any Soviet petroleum processing plant and individual

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Conference on the Complex Automation of
Petroleum Processing

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process automation lags so far behind that over 25% of the total labor force is occupied with secondary operations such as measuring, sample taking, and control. The chief obstacle to automation is the lack of necessary equipment. The conference held the following to be imperative: coordination of all research; and development and production of automation equipment to be vested in the State Committee of Automation and Machinery Construction of the USSR Council of Ministers. This committee should prepare a plan of research and development for 1960-1965, by not later than the first quarter of 1960, and have it considered by the USSR Gosplan to insure its fulfillment. The special position of petroleum processing plants in regard to automation should be recognized. Automation departments of institutes designing petroleum processing plants should be enlarged. The Special Designs Office of the ANN of the RSFSR Ministry of Construction should be expanded as the leading organization developing special automation

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Conference on the Complex Automation of
Petroleum Processing

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equipment for petroleum processing plants. Automation
departments at various petroleum processing plants
should be improved and expanded. A comprehensive catalog
of automation equipment should be issued, as well as
informational literature on Soviet and foreign experience.

Card 3/3

CHERNYAK, I.L.

Controlling losses of petroleum products when discharging them
from tanks. Neft. khoz. 38 no.9:59-61 S '60. (MIRA 13:9)
(Tank cars)

CHERNYAK, I.L.

Activity of local organizations of the Scientific and Technical
Society of the Petroleum and Gas Industries. Neft. khoz. 38 no.12:
60-62 D '60. (MIRA 14:4)

(Petroleum industry)

SONIN, S.D., prof.; SHEYKHET, M.N., dots.; CHERNYAK, I.L., inzh.

Controlling the heaving of ground in drift mining by means of
blasting using borehole charges. Shakht. stroi. 5 no. 3:8-10
Mr '61. (MIRA 14:2)

1. Moskovskiy gornyy institut.
(Blasting) (Mining engineering)

CHERNYAK, I.L.

All-Union Conference of Workers of the Petroleum Refining Industry.
Khim. i tekhn. topl.i masel 7 no.1:71-72 Ja '62. (MIRA 15:1)
(Petroleum--Refining)

CHERNYAK, I.L., gornyy inzh.

Basis for a possibility of anchoring heaving soil types in the
Moscow Basin. Nauch. trudy MGI no.38:33-43 '61. (MIRA 15:10)
(Moscow Basin--Clay--Testing) (Mine roof bolting)

CHERNYAK, I.L., gornyy inzhener

Using models to study soil heaving in mine workings and controlling it with anchor piles. Nauch. trudy MGI no.38:45-60 '61.

(MIRA 15:10)

(Moscow Basin--Soil mechanics) (Mine roof bolting)

CHERNYAK, I.L., gornyy inzh.; LUKICHEV, V.S., gornyy inzh.

Predicting soil heaving in workings of Moscow Basin mines. Nauch.
trudy MGI no.38:97-103 '61. (MIRA 15:10)
(Moscow Basin—Soil mechanics)

CHERNYAK, I.L., gornyy inzh.

Testing means of controlling soil heaving employing wooden
anchor piles and reinforced concrete anchors in mines Nos. 37
and 38 of the Stalinogorskugol' Trust. Nauch. trudy MGI
no.38:75-82 '61. (MIRA 15:10)
(Moscow Basin—Mine roof bolting)

CHERNYAK, I.L.

Public inspection of the carrying out of plans. Neftianik 7
no.9:22-23 S '62. (MIRA 16:7)

1. Uchenyy sekretar' smotrovoy komissii TSentral'nogo pravleniya
Nauchno-tekhnicheskikh obshchestv neftyanoy i gazovoy
promyshlennosti.
(Petroleum industry)

MATSKIN, Leonid Arkad'yevich; CHERNYAK, Il'ya L'vovich; NOVIKOVA,
M.M., ved. red.; VORONOVA, V.V., tekhn. red.

[Operation of tank farms] Eksploatatsiia neftebaz. Izd.2.,
perer. i dop. Moskva, Gostoptekhnizdat, 1963. 455 p.

(Petroleum--Storage)

(MIRA 16:12)

SONIN, S.D., prof.; CHERNYAK, I.L., kand. tekhn. nauk; MYASNIKOV,
Yu.G., inzh.

Control of ground swelling by means of underground
explosion charges. Ugol' 38 no.12:38-39 '63.

1. Moskovskiy institut radioelektroniki i gornoy (MIRA 17:5)
elektromekhaniki.

NEDIKOV, Vladimir Mikhaylevich; CHERNYAK, I.M., red.; VASIL'YEV, Yu.A.,
red.izd-va; GVIETS, V.L., tekhn.red.

[Supervisor of technical information in the machine shop]
Tekhnicheskii informator tsekha. Leningrad, Leningr. Dom nauchno-
tekhn.propagandy, 1961. 22 p. (MIRA 14:12)
(Technology--Information services)

CHERNYAK, I.M., aspirant

Experimental study of the natural frictional vibrations of
the brake shoes of the rolling stock. Trudy RIIZHT no.44:
139-155 '64. (MIRA 19:1)

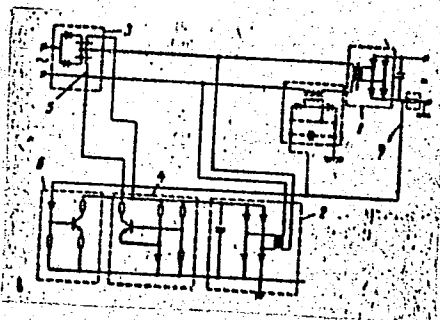
KARMINSKIY, D.E., doktor tekhn. nauk, prof.; SERGEYEV, G.M., starchyi
prepodavatel'; CHERNYAK, I.M., inzh.; ABAZIYEV, S.I., inzh.

Studying the sticking of the wheels of all-metal cars. Trudy
RIIZHT no.44:156-168 '64. (MIRA 19:1)

L 28020-66 EWT(1)/EWA(h)
ACC NR: AP6005300 (A) SOURCE CODE: UR/0413/66/000/001/0038/0038
INVENTOR: Ginzburg, A. I.; Lemekhov, V. N.; Chernyak, I. N.
ORG: none
TITLE: A rectified voltage regulator. ²⁵ Class 21, No. 177470
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 38
TOPIC TAGS: voltage regulator, electronic feedback, electronic rectifier
ABSTRACT: This Author's Certificate introduces a rectified voltage regulator which contains power and analog rectifiers connected to the output of an ac voltage regulator. The device also contains a unit which compares the analog rectifier voltage with a standard. This comparator acts on the control circuit of the ac regulator. Stability under varying load conditions is improved by using current feedback from the power rectifier load to control a variable resistor connected in parallel with the comparator.
UDC: 621.316 : 722.1 : 621.314.632

Card 1/2

ACC NR: AP6005300



1--power rectifier; 2--analog rectifier;
3--ac voltage regulator; 4--voltage comparat-
or; 5--ac regulator control unit; 6--vari-
able resistor; 7--feedback circuit

SUB CODE: 09/

SUBM DATE: 05May64

Card 2/2

MOROZOVA, Yelena Nikanorovna; CHERNYAK, I.S., dotsent, red.; KUBNEVA, M.M., tekhn.red.

[Technical-information and bibliographical centers in the U.S.S.R. and their publications; a report read at the Leningrad House of Scientific and Technical Propaganda in the seminar for workers providing technical information] Tekhniko-informatsionnye i bibliograficheskie tsentry v SSSR i izdavaemye imi materialy; stenogramma doklada, pročitannogo v LDNTP na zaniatiyakh seminar dlia rabotnikov sluzhb tekhnicheskoi informatsii. Leningrad, 1959. 22 p. (MIRA 13:4)

(Information services)

(Bibliography (Theory, methods, etc.))

ALYUSHINSKIY, Vladimir Ivanovich; CHERNYAK, I.S., dotsent, red.;
BLUMENAU, D.I., izd.red.; BELOGUROVA, I.A., tekhn.red.

[Organization of outside scientific and technical information
in scientific research institutes and designing offices] Orga-
nizatsiya vneshnei nauchno-tekhnicheskoi informatsii v nauchno-
issledovatel'skikh institutakh i konstruktorskikh biuro. Lenin-
grad, 1960. 22 p. (MIRA 14:1)
(Technology--Information services)

SHEKHURIN, Diodor Yefremovich; KATS, Yakov L'vovich; PETROV, Petr
Ivanovich; CHERNYAK, I.S., dotsent, red.; SHILLING, V.A.,
izd.red.; GVIJETS, V.L., tekhn.red.

[Participation of the section of scientific and technical
information in the work of the scientific research institute]
Uchastie otdela nauchno-tekhnicheskoi informatsii v razra-
botkakh nauchno-issledovatel'skogo instituta. Leningrad, 1960.
27 p. (MIRA 14:1)
(Technology--Information services)

PETROVA, Zinaida Mikhaylovna; CHERNYAK, I.S., dots., red.; KUBNEVA, M.M.,
tekhn. red.

[Organizational forms and methods of work in the technical information sections of research institutes] Organizatsionnye formy i metody raboty po tekhnicheskoi informatsii v nauchno-issledovatel'skikh institutakh. Leningrad, 1959. 38 p. (MIRA 14:10)
(Technology--Information services)

GOLOVIN, Grigoriy Ivanovich; CHERNYAK, I.S., dots., red.; VASIL'YEV,
Yu.A., red. izd-va; BELOGUROVA, I.A., ~~tekhn.~~ red.

[The role and place of a scientific and technical library in
information work] Rol' i mesto nauchno-tekhnicheskoi biblioteki
v informatsionnoi rabote. Leningrad, 1961. 20 p.

(MIRA 15:5)

(Scientific libraries)

(Technical libraries)

NEDIKOV, Vladimir Mikhaylovich; BOYEV, Yuriy Petrovich; CHERNYAK, I.S.,
red.; GRIGOR'YEVA, I.S., red. izd-va; BELOGUROVA, I.A., tekhn.
red.

[Plant council of innovators] Zavodskoi Sovet novatorov, Lenin-
grad, 1962. 20 p. (MIRA 15:3)
(Leningrad—Diesel engines—Technological innovations)

CHERNYAK, I. V.

Agricultural Implements

Heavy meadow drag for ridding meadows of mounds. Korm. baza 2 no. 8, '51

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.